

## APPENDIX B OPERATIONAL STANDARDS AND GUIDELINES

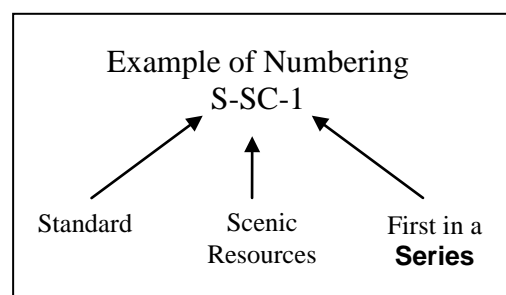
### INTRODUCTION

This document lists the standards, guidelines, and other routine practices that would be employed during implementation of the BWCAW Non-native Invasive Plant Management Project and would be implemented under all action alternatives.

Standards and guidelines are specific technical direction for managing resources and can be found in the Forest Plan. Standards are **required limits** to activities. These limitations help the Forest to reach the desired conditions and objectives. Standards also ensure compliance with laws, regulations, executive orders, and policy direction. Guidelines are **preferable limits** to management actions that may be followed to achieve desired conditions. Guidelines are generally expected to be carried out. They also help the Forest to reach the desired conditions and objectives in a way that permits operational flexibility to respond to variations over time. These are identified on the following pages as “S” or “G”.

Additional practices come from the Minnesota Forest Resource Council guide “Sustaining Minnesota Forest Resources. These are identified as “MFRC” and come directly from the Minnesota Forest Resource Council Voluntary Site-Level Forest Management Guidelines book. Also, some site-specific routine practices are identified by “NNIP” and are specific to this Project and were identified by the interdisciplinary team to provide additional direction for implementing the Project.

Table C-1. Key to Numbering	
<b>S</b>	Standard
<b>G</b>	Guideline
<b>BW</b>	Boundary Waters Canoe Area Wilderness
<b>HR</b>	Heritage Resources
<b>PH</b>	Public Health and Hazardous Materials
<b>REC</b>	Recreation
<b>PU</b>	Pesticide Use
<b>SC</b>	Scenic Resources
<b>WL</b>	Terrestrial and Aquatic Wildlife
<b>WS</b>	Watershed Health, Riparian Areas, and Soil Resources



## **Consistency with Minnesota Forest Resources Council (MFRC) Voluntary Site-level Guidelines**

- G-FW-1      The Forest Service will implement the MFRC management guidelines when managing forest resources on the National Forest. These measures are described in *Sustaining Minnesota Forest Resources: Voluntary site-level Management Guidelines*. (Available at: <http://www.frc.state.mn.us/FMgdline/Guidelines.html>)

*Note that not all of the MFRC guidelines are repeated in this document.*

## **Watershed Health, Riparian Areas, and Soil Resources (WS)**

### Watershed Health

- G-WS-1      Restore eroded sites, generally employing natural-appearing stabilization materials. Native species will be used in the restoration of vegetative cover. Non-native annuals may be used as nurse crops to obtain rapid stabilization while slower-growing native species are becoming established.
- NNIP-WS-1    Retain native vegetation and limit soil disturbance as much as possible.

### For Riparian Areas as a Whole (Both the Aquatic and Non-aquatic Portions)

- S-WS-4      Water quality Best Management Practices, which are represented by some of the MN Forest Resources Council (MFRC) Voluntary Site Level Forest Management Guidelines, will be implemented as standards on NFS land.

### Near-Bank Riparian Management Zone

- G-WS-7      Within the near-bank zone, minimize mowing or any other activity involving intensive removal of understory vegetation.

### Wetlands

- G-WS-13      Wetland impacts will be avoided whenever possible. Where impacts are unavoidable, minimize and compensate for loss when undertaking projects.
- G-WS-15      Wetlands will be managed to prevent the reduction of their water quality, fish and wildlife habitat, and aesthetic values. Management actions will not reduce water quality within a wetland, or upstream or downstream of a wetland, unless restoration of natural conditions is the primary goal of the activity.

## **Terrestrial & Aquatic Wildlife (WL)**

### Lynx

- G-WL-2      Provide for the protection of known active den sites during denning season.

Bald Eagle

(from the Northern States Bald Eagle Recovery Plan 1983 –USFWS)

*Disturbance Buffer Zones for Nest Trees.*

1. Primary Zone: 330 feet from the nest. All land use except actions necessary to protect or improve the nest site should be prohibited in this zone. Human entry and low-level aircraft operations should be prohibited during the most critical and moderately critical periods, unless performed in connection with eagle research or management by qualified individuals. Motorized access into this zone should be prohibited. Restrictions on human entry at other times should be addressed in the breeding area management plan considering the types, extents, and durations of proposed or likely activities.
2. Secondary Zone: 660 feet from the nest. Land-use activities that result in significant changes in the landscape, such as clearcutting, land clearing, or major construction, should be prohibited. Actions such as thinning tree stands or maintenance of existing improvements can be permitted, but not during the most critical and moderately critical periods. Human entry and low-level aircraft operations should be prohibited during the most critical period unless performed in connection with necessary eagle research and management by qualified individuals. Roads and trails in this zone should be obliterated, or at least closed during the most and moderately critical periods. Restrictions on human entry at other times should be addressed in the breeding area management plan, considering the types, extents, and durations of proposed or likely activities.
3. Tertiary Zone: one-quarter mile from the nest, but may extend up to one-half mile if topography and vegetation permit a direct line of sight from the nest to potential activities at that distance. The configuration of this zone therefore may be variable. Some activities are permissible in this zone except during the most critical period. Each breeding area management plan may identify specific hazards that require additional constraints.

**Regional Forester Sensitive Species**

All Sensitive Species

- G-WL-11      Avoid or minimize negative impacts to known occurrences of sensitive species.
- G-WL-12      Minimize negative impacts to known sensitive species from management activities that may disturb pairs in their breeding habitat during critical breeding season (varies by species).

S-WL-12 If negative impacts to sensitive species cannot be avoided, management activities must not result in a loss of species viability forest-wide or create significant trends to federal listing.

NNIP-WL-1 If any TES species are observed during implementation of NNIP control activities, work will stop until the District Wildlife Biologist is consulted. Treatments will be revised as necessary to avoid impacts to the subject species.

NNIP-WL-2 Prior to treatment of any new infestations not known at the time of this document, information about new infestations would be reviewed by appropriate resource specialists to determine whether surveys for sensitive resources are needed.

*Gray Wolf*

G-WL-10 Provide for the protection of known active gray wolf den sites during denning season.

*Boreal owl*

S-WL-6 Prohibit management activities within 300 feet of known nest sites.

G-WL-13 Minimize activities that may disturb nesting pairs during critical nesting season (March 1-June 1).

*Great gray owl*

G-WL-14 Allow, to the extent practical, only activities that protect, maintain, or enhance site conditions within 660 feet of a known nest site.

G-WL-15 Minimize activities that may disturb nesting pairs during critical nesting season (March 1 - June 1).

*Three-toed woodpecker*

G-WL-17 Protect known nest sites within a 200-foot radius surrounding nest sites until young have fledged.

*Sensitive butterflies*

S-WL-7 Allow only those management activities that protect, maintain, or enhance known locations for: Jutta arctic, taiga alpine, Freija's grizzled skipper, and Nabokov's northern blue

*Sensitive Fish, Mollusks, Aquatic Insects*

G-WL-19 Protect known sensitive mussel beds.

*Sensitive Lichens:*

(*Caloplaca parvula*, *Cetraria aurescens*, and *Sticta fulginosa*, *Menegazzia terebrata*,

*Ramalina thrausta, and Usnea longissima)*

- G-WL-21 Do not permit management activities within stands that have known locations of sensitive lichens unless activity maintains, protects or enhances habitat conditions for lichens (old growth black ash or lowland conifer with interior forest conditions).

### **Management Indicator Species**

(Bald Eagle – see above; Gray wolf – see above)

Northern goshawk (also a sensitive species)

- S-WL-10 At northern goshawk nest sites with an existing nest structure, prohibit or minimize, to the extent practical, activities that may disturb nesting pairs in an area of fifty acres minimum (860 ft. radius) during critical nesting season (March 1 – August 30).

At northern goshawk nest sites in an area of fifty acres minimum (860 ft. radius), to the extent practical, allow only those activities that protect, maintain, or enhance high quality habitat conditions: 100% mature forest (>50 yrs old) with continuous forest canopy (>90% canopy closure) and large trees with large branches capable of supporting nests.

- G-WL-22 Within northern goshawk post-fledging areas, minimize activities, to the extent practical, that may disturb nesting pairs during critical nesting season (March 1 – August 30) and, to the extent practical, within a 500 acre area encompassing all known nest areas within the territory:

Maintain suitable habitat conditions on a minimum of sixty percent of the upland forested acres in post-fledging areas. Suitable habitat: jack pine and spruce/fir forest types greater than twenty-five years and all other forest types greater than fifty years with semi-closed to closed canopy (greater than seventy percent). Aspen and birch forest types twenty-five to fifty years may be considered suitable if field review verifies that foraging habitat trees average fifty feet tall and canopy closure is fifty to seventy percent or greater.

### **Non-native Invasive Species**

- G-WL-23 During project implementation, reduce the spread of non-native invasive species.

### **Other Species of Interest**

Osprey

- G-WL-24 Minimize activities that may disturb nesting pairs of osprey within 330 feet of the nest during critical nesting season (April 1 - August 15).

- G-WL-25 From 330 to 660 feet from nest trees, allow only those management activities that maintain, protect, or enhance nesting area habitat.

*Great Blue Heron*

- G-WL-26 Prohibit management activities within 330 feet of active heron colonies. Prohibit management activities from 330 to 660 feet from the heron colony from March 1 through August 31.

*Common Loon*

- G-WL-28 Minimize management activities and new developments or other uses near nest sites between May 15 and July 1. Minimize management activities or new developments near nest areas frequently used by people.

**Heritage Resources (HR)**

- S-HR-6 All heritage-related investigations are done under current valid authorizations.
- S-HR-9 Historic properties to be protected include protected areas ("buffers") beyond known site limits, determined on a case-by-case basis considering landform, vegetative cover, access, and planned project activities.
- NNIP-HR-1 All earth disturbing NNIP treatments will be reviewed by heritage staff. Appropriate heritage inventory and heritage site protection measures will be in place prior to project implementation.

**Recreation (REC)**

- G-REC-2 Forest management activities will generally reflect recreation objectives while minimizing conflicts with recreation uses by:
- a. Placing safety signing to warn recreationists of activities in an area.
  - b. Scheduling activities during low recreation use periods.
- NNIP-REC-1 The timing of NNIP treatments would be coordinated with high periods of visitor use to minimize visitors' exposure to treated vegetation.

**Scenic Resources (SC)**

- G-SC-4 Evidence of temporary activities (such as staking, paint, flagging, equipment maintenance, and staging areas) should be minimized, removed, or cleaned up immediately following project completion in High SIO areas.

**Public Health and Hazardous Materials (PH)**

S-PH-2 All spills and contaminated soil sites will be quickly cleaned up in conformance with federal and State guidelines.

**BWCAW**

S-BW-1 In rehabilitation work, methods that allow the sites to revegetate naturally are preferred. If planting is necessary, species used will be indigenous to the BWCAW.

NNIP-BW-1 Use Leave No Trace techniques during project work.

**Pesticide Use (PU)**

MFRC-PU-1 Employ integrated pest management (IPM) strategies.

MFRC-PU-2 Use only pesticides registered by the U.S. Environmental Protection Agency and Minnesota Department of Agriculture.

MFRC-PU-3 Read and follow all label directions carefully prior to using any pesticide.

MFRC-PU-4 Maintain current labels and Material Safety Data Sheets (MSDS).

MFRC-PU-5 Evaluate other factors besides effectiveness and cost when selecting among pesticide options.

MFRC-PU-6 Select only pesticides labeled for aquatic use on sites where surface water is present at the time of application.

MFRC-PU-7 Select pesticides, application methods, equipment, and formulations that:

- Minimize the potential for pesticide drift

MFRC-PU-12 Treat spills properly.

- Act quickly
- Protect yourself
- Control the spill
- Contain the spill
- Guard the site
- Notify the authorities
- Clean up the spill

MFRC-PU-13 Maintain an adequate spill kit.

MFRC-PU-14 Inspect all containers prior to loading, and ensure that all caps, plugs, and bungs are tightened

MFRC-PU-15 Exercise care and caution during mixing and loading of pesticides.

- MFRC-PU-18 Replace pour caps and close bags or other containers immediately after use.
- MFRC-PU-19 Provide an air gap between the water source and the mixture surface to prevent backsiphoning.
- MFRC-PU-23 Protect vegetation that is part of a cultural resource if it will be impacted by pesticide applications.
- MFRC-PU-24 Refer to label directions before applying a herbicide.
- MFRC-PU-26 Use a drift control where appropriate.
- MFRC-PU-27 Consider applying pesticides near dawn or dusk, when wind speeds are generally lowest.
- MFRC-PU-29 Check all application equipment carefully, particularly for leaking hoses and connections and plugged or worn nozzles.
- MFRC-PU-30 Calibrate spray equipment periodically to achieve uniform pesticide distribution and rate.
- MFRC-PU-31 Employ the lowest reasonable equipment pressure when applying pesticides.
- MFRC-PU-33 Apply pesticides in accordance with the product label.
- MFRC-PU-36 Clean equipment in areas where pesticide residues will not enter streams, lakes, wetlands or groundwater
- MFRC-PU-37 Rinse mixing apparatus at least three times.
- MFRC-PU-39 Dispose of pesticide wastes and containers according to state and federal laws.
- MFRC-PU-41 Dispose of the triple-rinsed containers in one of two ways:
- By recycling through an approved program.
  - As ordinary solid waste at a landfill licensed by the Minnesota Pollution Control Agency.
- NNIP-PU-1 All guidelines presented in Forest Service Manual 2150, *Pesticide Use Management and Coordination*, in Forest Service Handbook 2109.14, *Pesticide Use Management and Coordination Handbook*, and in the Forest Service *Health and Safety Code Handbook* chapter 22.1 would be observed.
- NNIP-PU-2 Weather forecasts will be obtained prior to herbicide treatment. Treatment activities will be halted, if necessary, to prevent runoff during heavy rain events.



- NNIP-PU-3      Transport all herbicide concentrate in an original container with an intact label. Only transport the amount of herbicide needed for the sites that would be treated in one trip.
- NNIP-PU-4      Transport all herbicides, whether concentrated or diluted, inside a secondary, waterproof containment vessel.
- NNIP-PU-5      Mix all herbicides on a flat surface 50 feet or more from water.
- NNIP-PU-6      When mixing herbicides, place a catch basin (e.g. a Rubbermaid bin) underneath any bottles or sprayers containing concentrated or diluted herbicide solution.
- NNIP-PU-7      Do not apply pesticides directly to water.
- NNIP -PU-8      Do not clean pesticide application equipment in surface waters.
- NNIP -PU-9      No broadcast application of pesticides.
- NNIP -PU-10      Spot application is the only method permitted.
- NNIP -PU-11      Do not fill pesticide mixing or application equipment directly from surface water. Use a separate, water-only container for carrying surface water to the application equipment for herbicide mixing.
- NNIP -PU-12      Store, transport, and dispose of herbicides according to label instructions. Transport any containers emptied during a work trip back out of the BWCAW to the storage site at the District Office. Disposal operations will take place outside of the BWCAW at the District Office in accord with label directions, and any application of rinsate to NNIP would take place under the 2006 Superior National Forest NNIP Management Project EA outside of the BWCAW.
- NNIP -PU-13      Herbicide applicators will be supervised and trained by an employee with a Minnesota pesticide applicators license. Training will follow Forest Service policy as described in Forest Service Manual 2155.1, Forest Service Handbook 2109.14\_34, and Forest Service Health and Safety Code Handbook 22.1. The University of Minnesota Extension Service Publication "Category A Minnesota Supplement" and "National Pesticide Applicator Certification Core Manual" will be used as the basis for training applicators about integrated pest management, pesticide formulations, pesticide laws, pesticide labels, and pesticide safety.
- NNIP -PU-14      Avoid applying pesticides in conditions where drift may occur.
- NNIP -PU-15      Apply pesticides when wind speeds are 10 mph or less for spot application.

NNIP-PU-16      Use a wipe-on application technique to purple loosestrife leaves when no standing water is present at base of purple loosestrife plants. When standing water is present at base of purple loosestrife plants, use handpulling to treat them.